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10/717,510	11/21/2003	Gerardus J.E.L. Van Der Heijden	0142-0441P	8400
2292 7590 11/02/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER WILLS, LAWRENCE E	
			ART UNIT 2625	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/717,510	Applicant(s) VAN DER HEIJDEN, GERARDUS J.E.L.	
	Examiner Lawrence E. Wills	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/11/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: In paragraph [0018], "What with dark shape" is clearly a typographical error.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Yun et al.(US Patent 6,411,405).

Regarding claim 10, Yun teaches an apparatus having a transport scanner facility (i.e. shuttle type, column 1, lines 15-20) for scanning a two-dimensional original (i.e. A4 size, column 1, line 53) and for forming an electronic image (i.e. scanned pattern data in column 6, lines 51-52) thereof for subsequent usage in an information handling system (i.e. scanned data are stored in memory in column 6, lines 51-52), said apparatus comprising: calibration means (i.e. device for correcting the scanning errors in column 6, line 8) for calibrating device parameters (i.e. decline of pattern data and distance between bands in column 6, line 53-55) that control the scanning operation by means of a test original (i.e. pattern sheet in column 6, line 51),

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wherein said calibration means (i.e. device for correcting the scanning errors in column 6, line 8) includes processing means (i.e. CPU 34 in Fig. 3) for processing the electronic image (i.e. pattern data stored in a memory according to instructions of the CPU in column 6, lines 51-53) obtained by scanning the test original (i.e. scanning of the pattern data in column 6, lines 50-51) for deriving from at least one marking in the electronic image correction values (i.e. errors in decline of pattern data and errors in distance between bands in column 6, line 53-55) for the device parameters (i.e. decline of pattern data and distance between bands in column 6, line 53-55), and means for correcting the device parameters based on the derived correction values (i.e. image processor performs correcting of the errors for decline of pattern data in column 6, lines 17-22).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yun et al.(US Patent 6,411,405) in view of Motamed'312 (US Patent 7,212,312).

Regarding claim 1, Yun'405 teaches a method for calibrating (i.e. method for correcting scanning errors in column 6, lines 27-30) a transport scanner (shuttle type, column 1, lines 15-20) apparatus arranged for scanning a two-dimensional original (i.e. A4 size, column 1, line 53)

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and forming an electronic image (i.e. scanned pattern data in column 6, lines 51-52) thereof for subsequent usage in an information handling system (i.e. scanned data are sequentially stored in memory in column 6, lines 51-52), said scanning and forming of the electronic image being executed under the control of device parameters (i.e. decline of pattern data and distance between bands in column 6, line 53-55), which comprises: scanning a test original (i.e. scan pattern data S10 in Fig.4, column 6, line 51), provided with a test image (i.e. pattern sheet in column 6, lines 31-32), and forming an electronic original image thereof (i.e. pattern data, column 6, lines 50-55 and S20 in Fig. 4), wherein the test image contains at least one marking at a predetermined position (i.e. straight line or specified shape, column 6, lines 31-49).

Yun'405 teaches the at least one marking in an electronic bit map image (i.e. as shown in Fig. 4, the pattern data is scanned by the shuttle-type scanner. Thus, the pattern data shown in S10 and S20 must be an electronic bit map image. In view of this, the "at least one marking in an electronic bit map image" is an inherent feature of Yun'405.). However, Yun'405 does not expressly teach automatically calibrating the apparatus based on said at least one marking in an image formed therefrom.

Motamed'312 does teach automatically calibrating (i.e. automatic scanner calibration in abstract) the apparatus based on said at least one marking in an image formed therefrom (i.e. scanner control engine performs the calibration on the scanner using the calibration target strip in column 6, lines 43-45).

At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to correct the errors in a shuttle type scanner automatically. The suggestion for doing so would have been advantageous for the user by increasing the effectiveness of the

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scanner (i.e. Motamed'312, column 3, line 4). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 to obtain the invention as specified in claim 1.

6. Claims 2, 3, 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yun et al. (US Patent 6,411,405) in view of Motamed'312 (US Patent 7,212,312) as applied to claim 1 above, and further in view of Horobin (US Patent 7,106,477).

Regarding claim 2, Yun'405 in view of Motamed'312 teaches including the step of assessing a correction value (i.e. image processor performs correcting of the errors for decline of pattern data in Yun'405 column 6, lines 17-22), but fails to teach utilizing a zoom factor in the transport direction, wherein the test original, contains a leading edge and comprises two sides of at least one marking in known parallel displacement and parallel with the leading edge, and the method comprises a correction value for the zoom factor based on the actual parallel displacement of the two sides in the electronic image.

Horobin'477 teaches utilizing a zoom factor (i.e. magnification in column 3, line 28) in the transport direction (i.e. vertical, column 3, line 32), wherein the test original (i.e. Fig. 2), contains a leading edge (i.e. edge of sheet, column 3, line 56) and comprises two sides of at least one marking in known parallel displacement and parallel with the leading edge (i.e. Fig. 2 shows Zone A and C or B and D which are parallel with each other and the leading edge), and a correction value for the zoom factor (i.e. magnification in column 3, line 28) based on the actual parallel displacement (i.e. error in lateral displacement in column 4, lines 32-35 and lines 48-52) of the two sides in the electronic image.

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At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to calibrate a scanner using horizontal and vertical magnification. The suggestion for doing so would have been to preserve the placement and magnification of original images increasing the effectiveness of the scanner calibration (i.e. Horobin'477 column 1, line 30). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 and Horobin'477 to obtain the invention as specified in claim 2.

Regarding claim 3, Yun'405 in view of Motamed'312 fails to teach at least one marking on the test image has at least one side flush with an edge of the test original; and in the step of scanning the test original, a greater area than the area of the test original is scanned.

Horobin'477 teaches wherein at least one marking on the test image (i.e. as in Fig. 2) has at least one side flush with an edge of the test original (i.e. as in Fig.2 Zones A, B, C, and D are flush with the edge); and in the step of scanning the test original (i.e. feeds into the input scanner in column 3, lines 45-46), a greater area than the area of the test original is scanned (i.e. adjusting the initiation of image output relative to the drawing a sheet from a stack in column 5 line 55).

At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to calibrate a scanner using a test image. The suggestion for doing so would have been to preserve the placement and magnification of original images increasing the effectiveness of the scanner calibration (i.e. Horobin'477 column 1, line 30). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 and Horobin'477 to obtain the invention as specified in claim 3.

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Regarding claim 6, Yun'405 in view of Motamed'312 teaches including the step of assessing a correction value (i.e. image processor performs correcting of the errors for decline of pattern data in Yun'405 column 6, lines 17-22), but fails to teach the zoom factor is perpendicular to the transport direction, wherein the test original comprises two sides of at least one marking parallel to the transport direction, and wherein a correction value for the zoom factor perpendicular to the transport direction is based on a ratio of the distance between the two sides in the electronic image and the actual distance on the test original.

Horobin'477 teaches the zoom factor (i.e. magnification in column 3, line 28) is perpendicular to the transport direction (i.e. horizontal, column 3, line 32), wherein the test original (i.e. Fig. 2) comprises two sides of at least one marking parallel to the transport direction (i.e. Fig.2 shows Zone A and C or B and D which are parallel with each other and the transport direction), and wherein a correction value for the zoom factor perpendicular to the transport direction (i.e. horizontal magnification in column 3, line 28) is based on a ratio of the distance between the two sides in the electronic image and the actual distance on the test original(i.e. error in lateral displacement in column 4, lines 32-35 and lines 48-52).

At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to calibrate a scanner using horizontal and vertical magnification. The suggestion for doing so would have been to preserve the placement and magnification of original images increasing the effectiveness of the scanner calibration (i.e. Horobin'477 column 1, line 30). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 and Horobin'477 to obtain the invention as specified in claim 6.

Regarding claim 8, Yun'405 in view of Motamed'312 fails to teach the test original is made of a material that has an appropriately conforming and constant size, and carries at least one marking for automatically calibrating the apparatus.

Horobin'477 teaches wherein the test original is made of a material that has an appropriately conforming and constant size (i.e. certain standard size in column 3, line 55), and carries at least one marking for automatically calibrating the apparatus (i.e. Fig. 2, in addition, sheet is marked in column 3, line 56).

At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to calibrate a scanner using a test image. The suggestion for doing so would have been to preserve the placement and magnification of original images increasing the effectiveness of the scanner calibration (i.e. Horobin'477 column 1, line 30). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 and Horobin'477 to obtain the invention as specified in claim 8.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yun et al.(US Patent 6,411,405) in view of Motamed'312 (US Patent 7,212,312), in view of Horobin (US Patent 7,106,477) as applied to claim 3 above, and further in view of Sato (US Patent 5,245, 440).

Regarding claim 4, Yun'405 in view of Motamed'312 and in further view of Horobin'477 teaches including the step of assessing a correction value (i.e. image processor performs correcting of the errors for decline of pattern data in Yun'405 column 6, lines 17-22) and the test original contains a marking with one side flush with the leading edge (i.e. as in

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Horobin'477 Fig. 2), but fails to teach a CCD is used for scanning the two-dimensional original and features a leading edge timing signal for initiating the read out of the CCD, wherein a correction value for the leading edge timing signal is assessed based on the position of the one side in the electronic image in relation to the actually used leading edge timing signal.

Sato'440 teaches a CCD (i.e. CCD in column 3, line 58) is used for scanning the two-dimensional original (i.e. the document to be read in column 2, line 55) and features a leading edge timing signal for initiating the read out of the CCD (i.e. read start time in column 3, line 58), wherein a correction value for the leading edge timing signal (i.e. time of error in column 4, line 30 in addition, T1 and T2 in column 5, line 25) is assessed based on the position of the one side in the electronic image in relation to the actually used leading edge timing signal (i.e. formulae (1) and (2), equivalent to T1 and T2, correspond to the error between the bottom reference line and the actual read line X in column 5, lines 25-35).

At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to calibrate a scanners leading/trailing edge-timing signal. The suggestion for doing so would have been to preserve the placement and magnification of original images increasing the effectiveness of the scanner calibration (i.e. Horobin'477 column 1, line 30). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 and Horobin'477 with Sato'440 to obtain the invention as specified in claim 4.

Regarding claim 5, Yun'405 in view of Motamed'312 and in further view of Horobin'477 teaches including the step of assessing a correction value (i.e. image processor performs correcting of the errors for decline of pattern data in Yun'405 column 6, lines 17-22)

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and a trailing edge for stopping the read out of the CCD (i.e. trail edge in Horobin'477 column 5, line 40), wherein the test original contains a marking with one side flush with the trailing edge (i.e. as in Horobin'477 Fig. 2). However, Yun'405 in view of Motamed'312 and in further view of Horobin'477 fails to teach a CCD is used for scanning the two-dimensional original and a timing signal and wherein a correction value for the timing signal is assessed based on the position of the one side in the electronic image in relation to the actually used timing signal.

Sato'440 teaches a CCD is used for scanning the two-dimensional original (i.e. CCD in column 3, line 58) and a timing signal (i.e. read start time in column 3, line 58) and wherein a correction value for the timing signal (i.e. time of error in column 4, line 30 in addition, T1 and T2 in column 5, line 25) is assessed based on the position of the one side in the electronic image in relation to the actually used timing signal (i.e. formulae (1) and (2), equivalent to T1 and T2, correspond to the error between the bottom reference line and the actual read line X in column 5, lines 25-35,).

At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to calibrate a scanners leading/trailing edge timing signal. The suggestion for doing so would have been to preserve the placement and magnification of original images increasing the effectiveness of the scanner calibration (i.e. Horobin'477 column 1, line 30). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 and Horobin'477 with Sato'440 to obtain the invention as specified in claim 5.

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8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yun et al.(US Patent 6,411,405) in view of Motamed'312 (US Patent 7,212,312) as applied to claim 1 above, and in further view of Lodwick (US Patent 6,226,419).

Regarding claim 7, Yun'405 in view of Motamed'312 fails to teach the apparatus features a left or right margin position stop, wherein the test original utilizes a marking with one side flush with the left or right edge parallel to the transport movement; and for each line recording is initiated at a first available pixel element of the CCD or recording is stopped at a last available pixel element; and a correction value for the left or right margin signal is assessed based on the difference between the first or last available pixel element and the one side of the marking, with the one side being flush with the left or the right edge, respectively.

Lodwick'419 teaches the apparatus features a left or right margin position stop (i.e. margin mark in column 7, line 28), wherein the test original (i.e. calibration sheet 1 in Fig.3) utilizes a marking with one side flush with the left or right edge parallel to the transport movement (i.e. left and right margin mark in column 6, lines 10-15); and for each line recording is initiated (i.e. scanning may start in column 7, line 18) at a first available pixel element of the CCD (i.e. right edge of the shaded region in column 7, line 18) or recording is stopped at a last available pixel element (i.e. point G in column 7, line 27)); and a correction value for the left or right margin signal is assessed (i.e. error between the desired distance and the measure distance in column 7, lines 49-55) based on the difference between the first or last available pixel element and the one side of the marking, with the one side being flush with the left or the right edge, respectively.

At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to calibrate a scanners left and right margin. The suggestion for doing so would have been advantageous for the user by increasing the effectiveness of the scanner calibration (i.e. Motamed'312, column 3, line 4). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 and Lodwick'419 to obtain the invention as specified in claim 7.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yun et al.(US Patent 6,411,405) in view of Motamed'312 (US Patent 7,212,312) in further view of Horobin (US Patent 7,106,477) as applied to claim 8 above, and further in view of Fukuda (US Patent 6,624,876).

Regarding claim 9, Yun'405 in view of Motamed'312 and in further view of Horobin'477 fails to teach markings with a side flush with an edge of the test original are obtained by cutting the corresponding edge of the test original.

Fukuda'876 teaches markings with a side flush with an edge of the test original (i.e. leading end in abstract) are obtained by cutting the corresponding edge of the test original (i.e. cutter cuts the leading end portion off in abstract).

At the time when the invention was made, it would have been obvious to one of ordinary skill in the art to calibrate a scanner using a cut test image. The suggestion for doing so would have been to increase the effectiveness of the scanner calibration (i.e. advantageous for the user, Motamed'312, column 3, line 4). Therefore, it would have been obvious to combine Motamed'312 with Yun'405 and Horobin'477 with Fukuda'876 to obtain the invention as specified in claim 9.

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Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence E. Wills whose telephone number is 571-270-3145. The examiner can normally be reached on Monday-Friday 7:30 AM - 4:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on 571-272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LEW

October 19, 2007


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10/26/07